PATENT Atty Docket: 1506-310

**AMENDMENTS TO THE CLAIMS** 

Please amend claim 15 as set forth below.

**LISTING OF CLAIMS** 

1. (Original) An irrigation sprinkler for uniformly watering a target area

comprising:

a sprinkler body;

a nozzle disposed on said sprinkler body;

said nozzle comprising a substantially hollow, cylindrically shaped body

having a first end, a second end and a flow passageway extending therebetween

surrounded by an internal wall; and

a plurality of stepped, radial offsets formed along said internal wall such

that an internal diameter of said nozzle decreases from said first end to said

second end of said nozzle.

2. (Original) The irrigation sprinkler of claim 1 wherein said nozzle is

removable from said sprinkler body.

3. (Original) The irrigation sprinkler of claim 1 further including at least one

fin formed along said internal wall to reduce fluid turbulence.

4. (Original) The irrigation sprinkler of claim 3 wherein said fin is aligned

parallel to fluid flow.

5. (Original) The irrigation sprinkler of claim 1 wherein said first end is

attached to a fluid source.

6. (Original) The irrigation sprinkler of claim 1 wherein said second end is

attached to a fluid source.

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7. (Original) The irrigation sprinkler of claim 1 wherein said stepped radial

offsets are arranged at various angles to decrease a boundary layer of fluid

within said nozzle.

8. (Original) An irrigation sprinkler for uniformly watering a target area

comprising:

a sprinkler body;

a nozzle disposed on said sprinkler body;

said nozzle comprising a substantially hollow, cylindrically shaped body

having a first end, a second end and a flow passageway extending therebetween

surrounded by an internal wall;

a plurality of stepped, radial offsets formed along said internal wall such

that an internal diameter of said nozzle decreases from said first end to said

second end of said nozzle; and

at least one fin formed along said internal wall to reduce fluid turbulence.

9. (Original) The irrigation sprinkler of claim 8 wherein said nozzle is

removable from said sprinkler body.

10. (Original) The irrigation sprinkler of claim 8 wherein said fin is aligned

parallel to fluid flow.

11. (Original) The irrigation sprinkler of claim 8 wherein said first end is

attached to a fluid source.

12. (Original) The irrigation sprinkler of claim 8 wherein said second end is

attached to a fluid source.

13. (Original) The irrigation sprinkler of claim 8 wherein said stepped radial

offsets are arranged at various angles to increase a boundary layer of fluid within

said nozzle.

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14. (Original) The irrigation sprinkler of claim 8 wherein said stepped radial offsets are arranged at various angles to decrease a boundary layer of fluid within said nozzle.

15. (Currently Amended) The irrigation sprinkler of claim <u>14</u> wherein said boundary layer flows at a rate less than a centerline fluid velocity.

16. (Original) A method of uniformly watering a target area comprising: providing a sprinkler attached to a fluid source; introducing fluid from said fluid source to said sprinkler; urging said fluid to an exit of said sprinkler; and increasing a boundary layer thickness of said fluid as it exits said sprinkler

by urging said fluid through a stepped internal surface along said exit.

- 17. (Original) The method of claim 16 further comprising maximizing a throw radius of said sprinkler by maintaining boundary layer fluid flow at a rate less than centerline velocity.
- 18. (Original) The method of claim 17 further comprising producing even water distribution over said throw radius.
- 19. (Original) The method of claim 16 further comprising providing at least one fin formed along said stepped internal surface to reduce fluid turbulence.
- 20. (Original) The method of claim 19 further comprising providing a nozzle within said exit of said sprinkler to form a water stream projecting from one said of said sprinkler.